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## 2003 MARTEN HARVEST SURVEY

Brian J. Frawley

### ABSTRACT

*A survey was completed to determine the number of furtakers who set traps for martens, the number of martens caught, the types of traps used, and the number of days trapped. In 2003, 308 trappers obtained a permit to trap martens. About 76% of the permit holders set traps for martens (235 trappers). Trappers spent nearly 1,800 days afield trapping martens ( $\bar{x}$  = 7.6 days/trapper), captured 227 martens (included accidentally caught and released animals), and registered 156 martens. About 64% of furtakers captured at least one marten. The greatest numbers of marten were captured in Luce (49) and Marquette (33) counties. Compared to 2002, the number of furtakers trapping marten increased 38%, and the number of days that these furtakers trapped increased 27%. The number of marten captured increased 69%.*

### INTRODUCTION

The Wildlife Division has the authority and responsibility to protect and manage the wildlife resources of the State of Michigan. Harvest surveys are a management tool used by the Wildlife Division to help accomplish this statutory responsibility. The main objectives of this harvest survey were to determine the number of furtakers who set traps for martens (*Martes americana*), the types of traps they used, the number of days they trapped, and the number of martens that they caught.

Efforts to restore the American marten have been successful throughout the Upper Peninsula (UP) and portions of the northern Lower Peninsula. As a result, martens were removed from the state's threatened species list in March 1999. The abundance of martens in the UP was sufficient to support a limited harvest. A marten trapping season was created in 2000, establishing the first legal harvest of marten since 1924.



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In 2003, the marten trapping season was increased from 11 to 15 days in the UP (December 1-15), which was concurrent with the fisher (*M. pennanti*) trapping season. The entire UP, except Drummond Island and the Pictured Rocks National Lakeshore, was open to marten trapping. In order to trap martens, trappers were required to obtain a free marten trapping permit, in addition to a Fur Harvester License. Trappers were limited to one marten, and successful trappers were required to register marten taken by December 18, 2003. Trappers were not allowed to keep incidental marten that were caught. However, trappers were required to bring these incidental catches to a registration station if they could not be released alive. Trappers could use body-gripping or conibear-type traps and foothold traps to capture marten. Live traps were also legal if set within 150 yards of a residence or farm building.

## **METHODS**

A questionnaire was sent to everyone who obtained a marten trapping permit in 2003. Trappers receiving the questionnaire were asked to report if they trapped for martens, number of days spent afield, number of martens they caught (including all incidental catches and releases), and number of martens they registered (i.e., martens tagged and returned to the trapper). Trappers were also asked to indicate the status of the marten population in the county where they primarily trapped (i.e., absent, stable, increasing or decreasing).

Estimates were calculated using a simple random sampling design (Cochran 1977) and were presented along with their 95% confidence limit (CL). This confidence limit can be added and subtracted from the estimate to calculate the 95% confidence interval. The confidence interval is a measure of the precision associated with the estimate and implies that the true value would be within this interval 95 times out of 100. Estimates were not adjusted for possible response or nonresponse bias.

Questionnaires were mailed initially during mid-January 2004, and up to two follow-up questionnaires were mailed to nonrespondents. Questionnaires were returned by 270 of 304 people receiving the questionnaire (89% response rate). Questionnaires were undeliverable to 4 permit holders.

## **RESULTS AND DISCUSSION**

In 2003, 308 trappers obtained a permit to trap martens. Men obtained most of these permits (280). Women obtained 24 permits, and the sex of 4 permit holders was unknown. About  $77 \pm 2\%$  of the permit holders set traps for martens (235 trappers). Trappers spent 1,793 days afield trapping ( $\bar{x} = 7.6 \pm 0.3$  days/trapper), captured 227 martens, and registered 156 martens (Table 1). About  $64 \pm 2\%$  of furtakers successfully captured at least one marten. The greatest numbers of martens were captured in Luce (49 martens) and Marquette (33) counties. The estimated number of martens captured included animals that were accidentally captured and released.

Compared to 2002, the number of people trapping marten increased 38% (235 versus 170 trappers), and the number of days that people trapped increased 27% (1,793 versus 1,416 days) (Figure 1). The number of marten captured increased 69% (227 versus 134 martens, included animals that were accidentally captured and released).

Most trappers used conibear-type traps to capture martens ( $80 \pm 2\%$ ), although foothold traps also were used frequently ( $44 \pm 2\%$ ). Very few trappers ( $1 \pm 1\%$ ) used live traps to capture martens. Among trappers using foothold traps, the mean number of foothold traps set was  $4.6 \pm 0.4$  traps. Among trappers using conibear traps, the mean number of conibear traps set was  $6.8 \pm 0.8$  traps.

Forty-three percent of trappers ( $\pm 2\%$ ) believed marten numbers were increasing in the county where they trapped most often, while  $42 \pm 2\%$  thought marten numbers were stable,  $4 \pm 1\%$  thought that martens were declining,  $6 \pm 1\%$  indicated that martens were not present, and  $5 \pm 1\%$  did not comment on the status of martens.

## **ACKNOWLEDGEMENTS**

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## **LITERATURE CITED**

Cochran, W. G. 1977. Sampling techniques. John Wiley & Sons, New York. USA.

Table 1. Estimated number of trappers, trapping effort, martens captured (including all incidental catches and releases), and martens registered during the 2003 Michigan marten trapping season.

County	Trappers		Trapping effort (days)		Martens captured <sup>a</sup>		Martens registered <sup>b</sup>	
	Total	95% CL <sup>c</sup>	Total	95% CL <sup>c</sup>	Total	95% CL <sup>c</sup>	Total	95% CL <sup>c</sup>
Alger	24	3	141	23	24	4	21	4
Baraga	17	3	130	25	9	3	7	2
Chippewa	32	4	205	31	27	4	23	3
Delta	6	2	44	16	0	0	0	0
Dickinson	2	1	29	14	0	0	0	0
Gogebic	39	4	254	37	27	4	25	4
Houghton	14	3	114	24	3	1	3	1
Iron	26	4	229	36	8	2	8	2
Keweenaw	5	2	43	15	2	1	2	1
Luce	22	3	74	13	49	16	17	3
Mackinac	11	2	92	22	6	3	3	1
Marquette	32	4	176	28	33	7	21	3
Menominee	0	0	0	0	0	0	0	0
Ontonagon	24	3	179	31	24	6	16	3
Schoolcraft	16	3	73	16	14	3	10	2
Unknown	1	1	8	6	0	0	0	0
Statewide <sup>d</sup>	235	6	1,793	83	227	20	156	7

<sup>a</sup>All martens that were removed from traps, including all incidental catches and releases.

<sup>b</sup>Includes only martens that were registered (i.e., a seal was attached and the animal was returned to the furtaker).

<sup>c</sup>95% confidence limits.

<sup>d</sup>Number of trappers does not add up to statewide total because trappers could trap in more than one county. Column totals for trapping effort and capture may not equal statewide totals because of rounding errors.

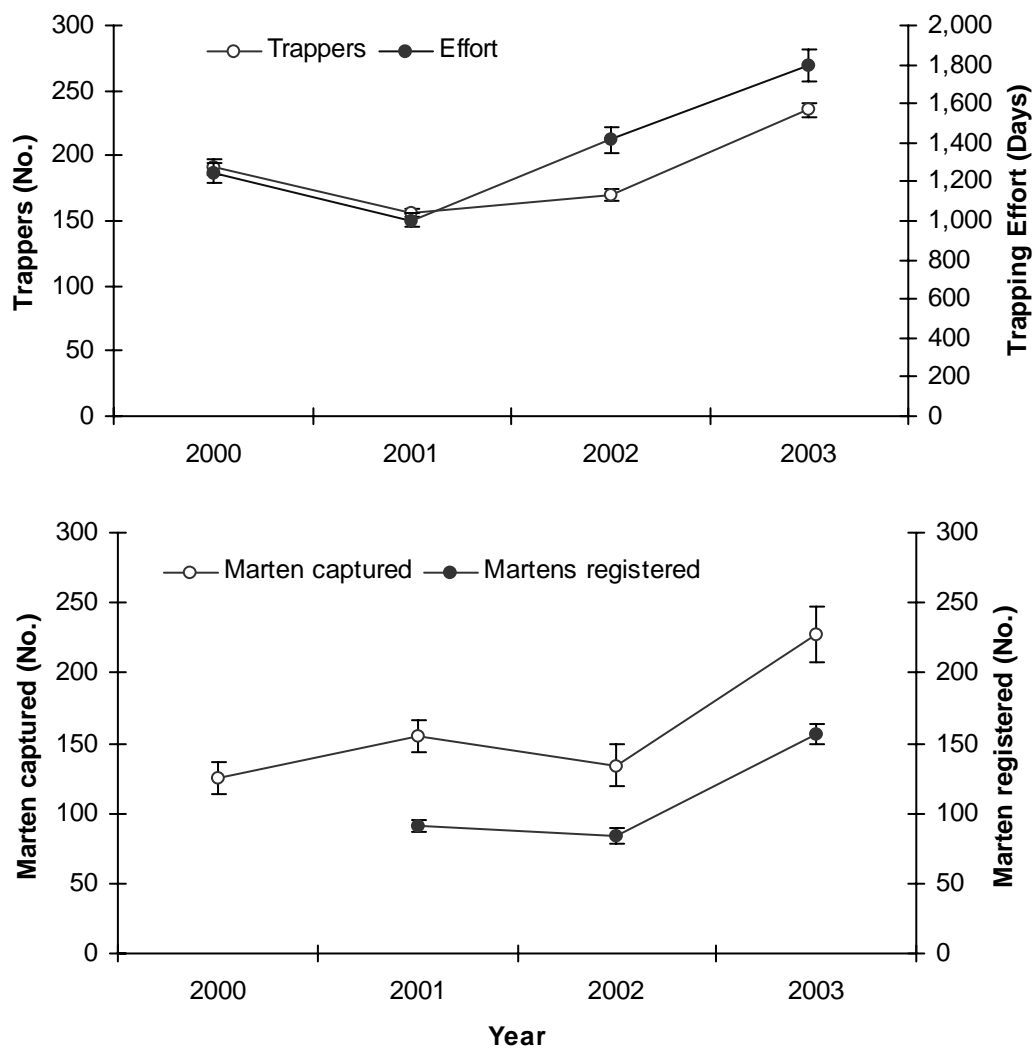


Figure 1. Estimated number of trappers, trapping effort (days), and number of marten captured and registered in Michigan, 2000-2003.